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Remarks/Arguments:

Claims 1-13 have been cancelled, and new Claims 25-44 have been added which are believed to patentably define over the prior art of record. Accordingly, reconsideration is requested since none of the prior art discloses the present invention.

More particularly, new Claims 25 patentably defines over the prior art of record, either taken singly or in combination, in setting forth a magnetic information storage medium operable to be non-erasable when exposed to a magnetic field including a bilayer including superimposed layers of magnetic material and nonmagnetic material including discrete information storage portions transcending said layer of magnetic material and said layer of nonmagnetic material formed by an intermixing of said magnetic material and said nonmagnetic material and having significantly lower permeability than the permeability of said magnetic material as an imbedded representation of information.

With respect to the prior art of record, the Beli patent relied upon in the rejection of the originally filed claims discloses an inventory marking system wherein surface areas of a material are marked by use of a laser, resulting in structural changes to the material and changes to the local magnetic properties of the material, which can thereafter be read by scanner detectors. Beli generally discloses measurement of the changes in magnetic, electric, and acoustic properties of the material, and identifies measurement of Barkhausen noise, stray flux, eddy currents and ultrasound as suitable parameters to be read or detected. Beli further recognizes that magnetic electric properties like permeability, coercive force, etc. of magnetizable materials depend on the structure of the material and the stress, wherein a localized stress accomplished during a laser writing process will result in the local change of magnetic properties of the material, which appears to be the basis for the selection of Barkhausen noise detection and stray flux detection described by Beli in columns 8-10. Beli's process would change the microstructure of the material. However, a ferromagnetic material would remain ferromagnetic after Beli's writing process, at best undergoing only a minor change in magnetic permeability, which Beli is not concerned with detecting.

Beli does not disclose or teach the use of the bilayer including superimposed layers of magnetic material and nonmagnetic material including discrete information storage portions transcending said layer of magnetic material and said layer of nonmagnetic material formed by an intermixing of said magnetic material and said nonmagnetic material and having significantly lower permeability than the permeability of said magnetic material as an imbedded representation of information. Beli does not accomplish any such intermixing of magnetic and nonmagnetic material, and does not achieve the significant reduction of permeability as an embedded representation of data as set forth in Claim 25. In contrast with Beli, intermixing a bilayer (such as of Ni and Cu) as disclosed and claimed by applicant will create a non-ferromagnetic material whose permeability is orders of magnitude less than that of a ferromagnetic material, thereby accomplishing significant data storage differentiation

beyond the disclosure or teachings of Beli. Accordingly, Beli is considered deficient in anticipating Claim 25.

Claim 35 is directed to a debit card which is non-erasable when exposed to a magnetic field and patentably defines over the prior art of record, either taken singly or in combination, in setting forth a magnetic information storage medium operable to be non-erasable when exposed to a magnetic field including a bilayer including superimposed layers of magnetic material and nonmagnetic material including discrete information storage portions transcending said layer of magnetic material and said layer of nonmagnetic material formed by an intermixing of said magnetic material and said nonmagnetic material and having significantly lower permeability than the permeability of said magnetic material as an imbedded representation of information, wherein a remainder of higher permeability bilayer represents information on remaining debit opportunity. Claim 35 is considered patentable for the same reasons given in support of the patentability of Claim 25.

Claims 26-34 and 42-44 depend from Claim 25 and are considered patentable for the reasons given in support of the patentability of Claim 25 as well as for the additional limitations contained therein. Claim 26 specifies the magnetic material to overlay the substrate and the nonmagnetic material to overlay the magnetic material; Claim 27 includes a protective layer over the bilayer; claim 28 specifies the protective layer to be aluminum oxide; Claims 29 and 31 recite the magnetic material to be any of permalloy, metglass or nickel and any combination thereof; Claims 30 and 32 recites the nonmagnetic material to be copper; Claims 33 and 34 specify the magnetic material to be approximately 10 to 1,000 nm thick; Claim 42 recites the discrete information storage portions are formed by diffusion; Claim 43 specifies the diffusion to be induced by the application of laser pulses; and Claim 44 recites the bilayer to include a plurality of magnetic layers interleaves with a plurality of nonmagnetic layers.

Claims 36-41 depend from Claim 35 and are considered patentable for the reasons given in support of the patentability of Claim 35 as well as for the additional limitations contained therein. Claim 36 includes a protective layer overlaying the bilayer; Claim 37 specifies the magnetic material to be any of permalloy, metglass or nickel and any combination thereof and the nonmagnetic material to be copper; Claim 38 recites the magnetic material to be approximately 10 to 1,000 nm thick; Claim 39 recites the discrete information storage portions are formed by diffusion; Claim 40 specifies the diffusion to be induced by the application of laser pulses; and Claim 41 recites the bilayer to include a plurality of magnetic layers interleaves with a plurality of nonmagnetic layers; and Claim 44.

For the above reasons, Claims 25-44 are believed allowable over the prior art of record and an early notice to such effect is solicited.

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